

5.57 (M)

RECLAMATION DISTRICT NO. 2038

235 East Weber Avenue
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Trustees
Kevin Jones
Bernard te Velde

Secretary and Attorney
Dante John Nomellini

District Engineer
Dominick Gulli

Department Of Water Resources (DWR)
1416 Ninth Street
Sacramento CA 94236-0001
PO Box 942836

June 2, 2011

Phone 916-651-0837
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Attn: Karimi Arao

email: sarao@water.ca.gov

Re: Reclamation District 2038 Lower Jones Tract
Work Agreement LJ-10-1.0
Scope of Work (SOW)

Introduction:

This project consists of upgrading the Lower Jones Tract Levee by (1) installing seepage stability toe berms from station 115+00 to 280+00 (2) constructing a portion of the PL 84-99 slope from station 45+00 to 280+00, (3) creating a setback levee at the Bacon Island Road undercrossing of the BNSF railroad at station 0+00 to 4+00 and (4) a Habitat Enhancement component to provide 2,500 ft of setback levee and Shaded Riverine aquatic habitat between station 20+00 to 70+00

This project is consistent with the (2) Project Solicitation Packages (PSP) submitted on behalf of Lower Jones Tract in April of 2010. The PSP's totaled approximately \$11,000,000 of improvements which the state approved \$5,540,216. This project will combine the two proposals and perform work in the locations of both PSP's.

Since the time of the submittal the District has:

- Made progress toward its 5 year plan, including more detailed cross sections to supplement the Lidar data, Determination of the required PL84-99 slopes (5 to 1 between stations 50+00 to 220+00 not 4:1 as stated in the PSP)
- Input Department of Fish and Game (DFG) habitat logs input into a spreadsheet and better determined the assets protected and areas of concern.
- The District has repaired the levee back slope from the 2004 Upper Jones Tract flood between approximate stations 210+00 to 340+00 (these areas were repaired only to their original condition not the PL84-99 slope nor the HMP elevation).
- Currently the District is implementing DWR work agreement LJ-09-2.0 for HMP crown raising, backslope work and waterside slope protection.
- The District has provided additional information to assist the DWR in determining the requirements regarding the California Environmental Quality Act (CEQA).

Personnel:

DWR Project Engineer:	Karimi Arao
District Engineer:	Dominick Gulli PE, PLS
Project Engineer:	Green Mountain Engineering, Dominick Gulli PE, PLS
Construction Manager	Kjeldsen, Sinnock and Neudeck, Inc. Chris Neudeck PE
District Secretary	Dante John Nomellini
DFG Representative	Mark Philipp
CEQA Consultant	Insite Environmental Trevor Smith
Environmental Biologist	Moore Biological Diane Moore

Work and Services:

The work consists of levee repairs including seepage and stability toe berms, back slope work toward the PL 84-99 levee template, a setback levee at Bacon Island Road and a setback levee to allow Habitat Enhancement along the waterside of the levee. Following are the procedures to be used to construct the works.

- A majority of the existing topography has been completed.
- A field visit with the DFG Representative has been made to determine any potential AB 360 impacts.
- Environmental consultants have been retained to assist with CEQA compliance and endangered species avoidance measures.
- Cross section data will be used to calculate quantities.
- Plans and specifications will be prepared.
- The Notice to Contractors will be published in a public newspaper in accordance with the public contracting code.
- The Notice to Contractors will also be forwarded to prospective contractors.
- A job walk will be held to show the project to prospective contractors.
- Addendums will be issued if clarification on the plans and specifications is required.
- The bids will be received and opened in public.
- The bids will be reviewed for completeness by the Project Engineer, District Engineer and District Secretary.
- A contract will be awarded to the lowest responsible bidder.
- Upon receipt of the required contract documents, a Notice to Proceed will be issued to the contractor.
- The improvements will be staked by the Project Engineer.
- All construction material such as import fill, rip rap and aggregate base will be delivered to the work site by trucks or floating equipment and will be paid for by the ton.
- The Construction Manager will ensure that the project is being constructed per the plans and specifications.
- Contractor progress payments will be reviewed on a monthly basis by the Engineers and reported to the District and DWR for payment.

- An as-built report will be prepared at the conclusion of each completed portion of the work.
- The scope of work shall not deviate from this SOW without consultation with the DWR Project Engineer.
- No direction shall be taken from sources other than DWR.

Work Areas:

The PSP work areas originally proposed will be the basis of the scope of work. Enclosed is a map illustrating the work areas.

Seepage/stability toe berms Work Area 1

Seepage/Stability toe berms will be installed beyond the toe of the PL 84-99 levee slope at various locations

Stations 115+00 to 280+00.

Lower Lifts of PL 84-99 Slopes Work Area 2

The lower lifts of the PL84-99 toe berm/slope will be installed in approximate 4 ft thick lifts at a rate of about 12-16 tons/lf. The practice is to allow a complete lift to rest for a minimum of 30 days to monitor prior to placing additional lifts.

Stations 45+00 280+00

Bacon Island Road Undercrossing of the BNSF Railroad. Work Area 3

The District will construct a setback levee landside of the Bacon Island Road Undercrossing of the BNSF Railroad. The levee will serve as a secondary levee to the existing levee which is waterside of the existing road and under the railroad tracks which cannot be properly maintained.

Habitat Enhancement/Emergency Preparation work Area 4

The two PSP's included 5000 ft of Habitat setback levee between levee stations 20+00 to 70+00 of which this SOW will attempt to provide approximately 2,500 ft within the proposed levee stations. The setback will shift the PL 84-99 template landward to allow tree/scrub and cover plantings outside of the PL84-99 levee template. The trees would be planted within slope protection above the OHWM possibly with biodegradable ballast buckets similar to those used in projects throughout the Delta. Quarry stone slope protection will be used to protect the habitat area and the vegetation it supports.

The completion of the habitat setback is dependent on constraints such as funding, permitting, and contract completion date restraints The District will coordinate with the DWR to satisfactorily implement this project component.

The fill will be placed in lifts similar to the PL 84-99 slope described above

Ancillary Work

To accommodate the import fill proposed in these work sites, modifications to landowner's siphons and ramps may be required. For siphons, this would include raising the pipes through the levee crown such that the invert is above the Base Flood Elevation (BFE)/100 year flood plain elevation and modifying the landside sections of pipe and discharges to conform to the proposed slope work. Ramps may require regrading and levee access roads need to be maintained.

Review process:

Preliminary data will be prepared by the Project Engineer. The funding request for the preparation of the SOW, CEQA review and preliminary Engineering was submitted on 5/10/11. Subsequent funding advances will be submitted semi annually with updated budgets and progress reports.

Upon approval of the SOW, the plans and specifications will be prepared and submitted to DWR for review. Revisions if required will be incorporated accordingly.

A site visit was conducted during the week of December 8th 2010, with DFG and DWR personnel. Upon approval of this SOW, DFG will provide AB360 mitigation requirements. The AB 360 pre-project form will be completed and submitted to DWR.

Permitting Issues:

The CEQA Notice of Exemption has been filed and the DWR Environmental Information form is included herewith.

To avoid any unusual circumstances that may arise during the project the following procedures will be followed:

- All riprap will be placed above the Ordinary High Water Mark (OHWM).
- No onsite borrow sites will be used. All material will be imported.
- All impacts to habitat will be mitigated per the Delta levee program (AB 360) requirements.
- DFG will review the work sites prior to the start of work to ascertain the quantity of AB 360 Habitat that may be required. The District will expend funds from the work agreement to execute the mitigation.
- An independent CEQA determination by Insight Environmental Inc is enclosed herewith.
- A Baseline Biological Resources Assessment by Moore Biological is also enclosed herewith.
- As outlined in the Moore Biological resources assessment, the District will implement the projects biological avoidance measures (attached).

The DFG Representative and DWR staff has visited the site. The work associated with this SOW raised no preliminary concerns as long as a Streambed Alteration Agreement is obtained for the waterside slope protection and waterside plantings. The District obtained a streambed alteration Agreement Notification 1600-2010-0388-R3 for DWR work agreement LJ-09-2.0 which included additional incidental rip rap for this SOW.

Mitigation:

The DFG will determine the required AB360 mitigation requirements. Upon completion of the work DFG will calculate the quantity and type of mitigation required. The District will enter into agreements for purchase of mitigation credits at DFG approved Mitigation Banks.

Quality Assurance and Quality Control:

Material submittals and approval prior to job delivery.

Onsite inspection to assure the contractor is completing the work per the plans and specifications.

Meetings:

A meeting will be held with DWR prior to bidding the project to review the plans and specification as well as the procedures for project implementation. Comments on the plans and specifications will be incorporated as necessary.

A prebid meeting and job walk will be held for prospective contractors.

A preconstruction meeting will be held at the beginning of the project between the Engineers and the successful contractor.

Meetings will be arranged as needed during construction.

Schedule of Work:

Following is a tentative schedule that reflects the project milestones.

<u>Description</u>	<u>Start</u>	<u>Complete</u>
Receive DWR Project Funding Agreement	Feb 28, 2011	
Field surveys	Jan 15, 2011	June 30, 2011
Develop initial plan and specifications	Jan 15, 2011	July 15, 2011
Site visit with DFG for preliminary planning of provisional work	Dec 08, 2010	Dec 08, 2010
Prepare Environmental/CEQA Information	Feb 2, 2011	June 02, 2011
Prepare SOW	Feb 2, 2011	June 02, 2011
Request initial advance funding	May 10, 2011	
Approve SOW/CEQA Exemption	June 03, 2011	June 06, 2011
Delta Stewardship Council approval	June 06, 2011	June 15, 2011
Prepare final plans and specifications (P/S)	June 15, 2011	July 01, 2011
DWR review of P/S	July 01, 2011	July 15, 2011
DWR Process and advance funding	May 10, 2011	July 15, 2011
Advertise and Bid construction project	July 15, 2011	Aug 05, 2011
Award contract	Aug 05, 2011	Aug 15, 2011
Construct project(s)	Aug 15, 2011	June 30, 2013
As built report(s)	June 30, 2011	June 30, 2013

Budget:

Attached to this SOW is the budget showing the SOW expected project costs, which reflects the estimated costs for the project. In the event that competitive bids are received that are

lower than the estimated budget, additional fill will be proposed to be placed within the prescribed template(s). Conversely, if the bids are more than the estimate or if the quantities are understated, less fill will be placed at the PL84-99 slope locations.

If you have any questions regarding this Scope of Work, please contact me at greenmountaindom@hotmail.com or phone (209) 478-6525.

Green Mountain Engineering



Dominick Gulli PE, PLS
District/Project Engineer

Attachments:

Environmental Information Form
SOW Budget Dated
Work Area Drawing
Typical Cross sections
Insite Environmental Inc. Confirmation of CEQA determination
Moore Biological Baseline Biological Resources assessment
USFWS Species list and CNDDB
Photos

CC: Dante John Nomellini
Insight Environmental
Moore Biological
Chris Neudeck

3.16A

RECLAMATION DISTRICT NO. 684

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Robert Giovannoni
Kurt Sharp

Secretary and Attorney
Dante John Nomellini

Engineer
Dominick Gulli

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Sacramento CA 95814

5/31/2011
email: mikemi@water.ca.gov
Phone: 916-651-7016

Attn: A Felipe Garcia

afgarcia@water.ca.gov

Re: Reclamation District 684 Lower Roberts Island
Work Agreement LR-10-1.0
Scope Of Work (SOW)

Introduction:

This project consists of upgrading the Lower Roberts Island by: (1) HMP Improvements at Tiki Lagoon, stations 256+00 to 274+00. (2) HMP improvements at the Natali dry Levee, stations 766+00 to 797+00. (3) Raise and widen Whiskey Slough Levee crown at various locations from station 0+00 to 260+00. (4) Provide waterside slope protection along various locations between stations 20+00 to 260+00. (5) Provide a habitat enhancement setback levee from stations 134+00 to 148+00 including 1400 ft of Shaded Riparian Aquatic Habitat. The general scope of services is consistent to that outlined in the Proposal Solicitation Package (PSP) submitted to the DWR dated 26Mar10.

Since the time of the PSP the District has completed and paid for the first Phase of The Tiki Lagoon Improvements to be reimbursed through the 09/10 DWR subventions program. This work included: clearing and grubbing, installation of utility sleeves and a portion of the import fill, aggregate base, encroachment modifications and rip rap placement.

Personnel:

DWR Project Engineer:
District President/Superintendent:
Trustee:
Trustee:
District Secretary:
Project Engineer:
District Engineer:

A Felipe Garcia
Kurt Sharp
John Armanino
Robert Giovannoni
Dante John Nomellini Sr.
Green Mountain Engineering
Dominick Gulli PE, PLS

Construction Manager

Kjeldsen, Sinnock and Neudeck, Inc.
Chris Neudeck PE

Work and Services:

The work consists of levee repairs including HMP improvements at Tiki Lagoon, HMP improvements at Natali Levee, raising and widening of the Whiskey Slough Levee crown, slope protection of Whiskey Slough levee and a habitat enhancement setback levee. Following are the procedures to be used to construct the works.

- A majority of the existing topography has been completed.
- A field visit with the DFG Representative has been made to determine any potential AB 360 impacts.
- Environmental consultants have been retained to assist with CEQA compliance and endangered species avoidance measures.
- Cross section data will be used to calculate quantities.
- Plans and specifications will be prepared.
- The Notice to Contractors will be published in a public newspaper in accordance with the public contracting code.
- The Notice to Contractors will also be forwarded to prospective contractors.
- A job walk will be held to show the project to prospective contractors.
- Addendums will be issued if clarification on the plans and specifications is required.
- The bids will be received and opened in public.
- The bids will be reviewed for completeness by the Project Engineer, District Engineer and District Secretary.
- A contract will be awarded to the lowest responsible bidder.
- Upon receipt of the required contract documents, a Notice to Proceed will be issued to the contractor.
- The improvements will be staked by the Project Engineer.
- All construction material such as import fill, rip rap and aggregate base will be delivered to the work site by floating equipment or truck and will be paid for by the ton.
- The Construction Manager will ensure that the project is being constructed per the plans and specifications.
- Contractor progress payments will be reviewed on a monthly basis by the Engineers and reported to the District and DWR for payment.
- An as-built report will be prepared at the conclusion of each completed portion of the work.
- The scope of work shall not deviate from this SOW without consultation with the DWR Project Engineer.
- No direction shall be taken from sources other than DWR.

Work Areas:

The PSP work areas originally proposed will be the basis of the scope of work. Enclosed is a map illustrating the work areas

Work Area 1 Phase 2 of the Tiki Lagoon HMP Improvements. Stations 256+00 to 274+00.

This area is a low section of levee with many encroachments associated with a commercial marina. The district has been diligently investing in completing the improvements to raise the and widen the levee and to remove encroachments such as buildings, vegetation, utilities and miscellaneous structures. The work is required to be performed outside of the busy boating season to lessen the impact to the resort. The project required Phasing such that the utility sleeves can be installed to allow the Marina to relocate the utilities such that the old utilities can be removed in Phase 2 when the levee is brought up to the prescribed lines and grades required by the District. Phase 2 will include the remaining fill, aggregate base rock, exploratory trench, utility removal and mitigation.

Work Area 2 HMP raising at the Natali levee Station 766+00 to 797+00.

This levee protects the island from a levee breach of the San Joaquin River from the upriver Islands of Middle and Upper Roberts. The improvement of this levee was started by the District after the 1997 high water event and this PFA will complete the levee to the minimum HMP template.

Work Area 3 Whiskey Slough levee Stations 50+00 to 56+00, 72+00 to 78+00, 108+00 to 176+00 and 234+00 to 252+00.

. This PFA will raise, widen and provide all weather surfacing to the crown for better maintenance and emergency access.

Work area 4 Waterside slope protection above OHWM along the Whiskey slough levee approximately 7,400 feet intermittently between Stations 20+00 to 260+00. See work area map for list of stations.

Work area 5 Habitat enhancement setback levee Station 134+00 to 148+00. The objective is to construct an oversized "setback levee" that will shift the PL 84-99 template landward to allow tree/scrub and cover plantings outside of the PL84-99 levee template. The trees would be planted within slope protection above the OHWM possibly with biodegradable ballast buckets similar to those used in other projects in the Delta. Quarry stone slope protection will be used to protect the habitat area and the vegetation it supports.

The completion of the habitat setback is dependent on constraints such as funding, permitting, and contract completion date restraints The District will coordinate with the DWR to satisfactorily implement this project component.

The lower lifts of the setback levee will be installed in approximate 4 ft thick lifts at a rate of about 12-16 tons/lf. The practice is to allow a complete lift to rest for a minimum of 30 days to monitor prior to placing additional lifts.

Ancillary Work

To accommodate the import fill proposed in these work sites, modifications to landowner's siphons and ramps may be required. For siphons, this would potentially include raising the pipes through the levee crown such that the invert is above the Base Flood Elevation (BFE)/100 year flood plain elevation and modifying the landside sections of pipe to conform to the proposed slope work. Ramps may require regradeing and access roads need to be maintained.

Review Process:

Preliminary data will be prepared by the Project Engineer. . The funding request for the preparation of the SOW, CEQA review and preliminary Engineering was submitted on 5/10/11. Subsequent funding advances will be submitted semi annually with updated budgets and progress reports.

Upon approval of the SOW, the plans and specifications will be prepared and submitted to DWR for review. Revisions if required will be incorporated accordingly.

A site visit was conducted during the week of December 8th 2010, with DFG and DWR personnel. Upon approval of this SOW, DFG will determine AB360 mitigation requirements. The AB 360 pre-project form will be completed and submitted to DWR.

Permitting Issues:

A CEQA Notice of Determination has been filed and the DWR Environmental Information form is included herewith.

To avoid any unusual circumstances that may arise during the project the following procedures will be followed:

- All riprap will be placed above the Ordinary High Water Mark (OHWM).
- No onsite borrow sites will be used. All material will be imported.
- All impacts to habitat will be mitigated per the Delta levee program (AB 360) requirements.
- DFG will review the work sites prior to the start of work to ascertain the quantity of AB 360 Habitat that may be required. The District will expend funds from the work agreement to execute the mitigation.
- An independent CEQA determination by InSite Environmental Inc is enclosed herewith.
- A Baseline Biological Resources Assessment by Moore Biological Consultants is also enclosed herewith.
- As outlined in the Moore Biological resources assessment, the District will implement the projects biological avoidance measures (attached).

The DFG Representative and DWR staff has visited the site. The work associated with a majority of this SOW raised no preliminary concerns as long as a Streambed Alteration Agreement is obtained for the waterside slope protection and waterside plantings. The District's (Lower Roberts Island) Standard Routine Maintenance Agreement (Notification II-836-90) allows only 1,200 feet of slope protection placement per year, in increments not exceeding 100 ft. The PSP included more than this amount, and the District will prepare a Notification of Lake or Streambed Alteration, which will be forwarded to the District's DFG representative, Mark Philipp, as well as the Regional Office Central Coast (Region 3) in Yountville, CA. This notification is the application to obtain a Streambed Alteration Agreement (SAA/1602permit).

Mitigation:

The DFG will determine all of the required AB360 mitigation requirements. Upon completion of the work DFG will calculate the quantity and type of mitigation required. The District will enter into agreements for purchase of mitigation credits at DFG approved Mitigation Banks.

The Tiki Lagoon Phase I mitigation has been determined as 0.8 acres of impact by Fish and Game. This results in 2.4 acres of mitigation within the PFA as outlined in the enclosed budget.

Quality Assurance and Quality Control:

Material submittals and approval prior to job delivery.

Onsite inspection to assure the contractor is completing the work per the plans and specifications.

Meetings:

A meeting will be held with DWR prior to bidding the project to review the plans and specification as well as the procedures for project implementation. Comments on the plans and specifications will be incorporated as necessary.

A prebid meeting and job walk will be held for prospective contractors.

A preconstruction meeting will be held at the beginning of the project between the Engineers and the successful contractor.

Meetings will be arranged as needed during construction.

Schedule of Work:

Following is a tentative schedule that reflects the project milestones.

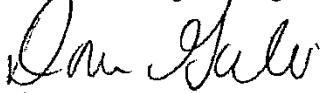
<u>Description</u>	<u>Start</u>	<u>Complete</u>
Receive DWR Project Funding Agreement	Feb 28, 2011	
Field surveys	Jan 15, 2011	May 15, 2011
Develop initial plan and specifications	Jan 15, 2011	June 15, 2011
Site visit with DFG for preliminary planning of provisional work	Dec 08, 2010	Dec 08, 2010
Prepare Environmental/CEQA Information	Feb 2, 2011	May 24, 2011
Prepare SOW	Feb 2, 2011	May 31, 2011
Notification of Streambed Alteration	Feb 15, 2011	June 15, 2011
Process Streambed Alteration Agreement	June 15, 2011	July 30, 2011
Request initial advance funding	May 10, 2011	
Approve SOW/CEQA Exemption	May 31, 2011	June 06, 2011
Delta Stewardship Council approval	June 06, 2011	June 15, 2011
Prepare final plans and specifications (P/S)	June 15, 2011	July 01, 2011
DWR review of P/S	July 01, 2011	July 15, 2011
DWR Process and advance funding	May 10, 2011	July 15, 2011
Advertise and Bid construction project	July 15, 2011	Aug 05, 2011
Award contract	Aug 05, 2011	Aug 15, 2011
Construct project(s)	Aug 15, 2011	June 30, 2013
As built report(s)	June 30, 2011	June 30, 2013

Budget:

Attached to this SOW is the budget showing the SOW expected project costs, which reflects the estimated costs for the project. In the event that competitive bids are received that are lower than the estimated budget, additional fill will be proposed to be placed within the prescribed template (s).

If you have any questions regarding this Scope of Work, please contact me at greenmountaindom@hotmail.com or phone (209) 478-6525.

Green Mountain Engineering



Dominick Gulli PE, PLS
District/Project Engineer

Attachments:

Environmental Information Form Dated May 20, 2011

SOW Budget Dated May 20, 2011

Work Area Drawing

Typical Cross sections

Insite Environmental Inc. Confirmation of CEQA determination Dated May 19, 2011

Moore Biological Baseline Biological Resources assessment dated May 19, 2011

USFWS Species list and CNDDB

Photos

CC: Dante John Nomellini
Insight Environmental
Moore Biological
Chris Neudeck

5.51M

RECLAMATION DISTRICT NO. 2024

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5/20/11

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Attn: A Felipe Garcia

afgarcia@water.ca.gov

Re: Reclamation District 2024 Orwood and Palm Tract
Work Agreement OP-10.0-2.0 (Palm Tract)
Scope of Work (SOW)

Introduction:

The project defined in this Scope of Work (SOW) consists of upgrading the Palm Tract Levee intermittently between levee stations 60+00 to 402+00 with: (1) construction of portions of the PL84-99 slopes for slope stability and seepage control; (2) toe berm construction for slope stability and seepage control; (3) construction of a setback back levee to allow for waterside plantings for habitat enhancement; (4) providing Rock Slope protection along the waterside of the levee above the Ordinary High Water Mark (OHWM); and (5) providing stockpiles of emergency levee materials (Riprap and Aggregate Base (AB)). The general scope of services is consistent to that outlined in the Proposal Solicitation Package (PSP) submitted to Department of Water Resources (DWR) as amended on April 6, 2010. Levee materials will be imported to the jobsite with trucks or marine based equipment and barges.

Since the time of the PSP submittal, the District has made progress toward its 5 year plan by surveying more detailed cross sections to supplement the Lidar data provided by DWR. The Department of Fish and Game (DFG) habitat logs have been input into a spreadsheet, and a better determination of assets protected and areas of concern has been made.

Personnel:

DWR Project Engineer:	A Felipe Garcia
District/Project Engineer:	Dominick Gulli PE, PLS
	Green Mountain Engineering,
Construction Manager	Kjeldsen, Sinnock and Neudeck, Inc.
	Chris Neudeck PE
District Secretary	Dante John Nomellini

DFG Representative	Mark Philipp
CEQA Consultant	Insight Environmental
	Trevor Smith
Environmental Biologist	Moore Biological
	Diane Moore

Work and Services:

The work consists of levee repairs including back slope work toward the PL 84-99 slope, a setback levee to allow Habitat Enhancement along the waterside of the levee, waterside slope protection above the Ordinary High Water Mark (OHWM), and emergency material stockpiles. Following are the procedures to be used to construct the works.

- A majority of the existing topography has been completed.
- A field visit with the DFG Representative has been made to determine any potential AB 360 impacts.
- Environmental consultants have been retained to assist with CEQA compliance and endangered species avoidance measures.
- Cross section data will be used to calculate quantities.
- Plans and specifications will be prepared.
- The Notice to Contractors will be published in a public newspaper in accordance with the public contracting code.
- The Notice to Contractors will also be forwarded to prospective contractors.
- A job walk will be held to show the project to prospective contractors.
- Addendums will be issued if clarification on the plans and specifications is required.
- The bids will be received and opened in public.
- The bids will be reviewed for completeness by the Project Engineer, District Engineer and District Secretary.
- A contract will be awarded to the lowest responsible bidder.
- Upon receipt of the required contract documents, a Notice to Proceed will be issued to the contractor.
- The improvements will be staked by the Project Engineer.
- All construction material such as import fill, rip rap and aggregate base will be delivered to the work site by floating equipment, and will be paid for by the ton.
- The Construction Manager will ensure that the project is being constructed per the plans and specifications.
- Contractor progress payments will be reviewed on a monthly basis by the Engineers and reported to the District and DWR for payment.
- An as-built report will be prepared at the conclusion of each completed portion of the work.
- The scope of work shall not deviate from this SOW without consultation with the DWR Project Engineer.
- No direction shall be taken from sources other than DWR.

Work Areas:

The PSP work areas originally proposed will be the basis of the scope of work. Enclosed is a map illustrating the work areas.

Lower Lifts of PL 84-99 Slopes Work Area 1

The lower lifts of the PL84-99 toe berm/slope will be installed in approximate 4 ft thick lifts at a rate of about 12-16 tons/lf. The practice is to allow a complete lift to rest for a minimum of 30 days to monitor prior to placing additional lifts.

Stations 60+00 to 150+00, 170+00 to 190+00 and 210+00 to 401+00

Seepage/stability toe berms Work Area 2,2a

Stations 0+00 to 60+00 (2000 ft at various locations) and 220+00 to 225+00

Habitat Enhancement/Emergency Preparation work Area 3

An oversized "setback levee" will be constructed between levee stations 300+00 to 320+00 that will shift the PL 84-99 template landward to allow tree/scrub and cover plantings outside of the PL84-99 levee template. The trees would be planted within slope protection above the OHWM possibly with biodegradable ballast buckets similar to those used in projects throughout the Delta. Quarry stone slope protection will be used to protect the habitat area and the vegetation it supports.

The completion of the habitat setback is dependent on constraints such as funding, permitting, and contract completion date restraints. The District will coordinate with the DWR to satisfactorily implement this project component.

The fill will be placed in lifts similar to the PL 84-99 slope described above

Emergency Preparation Work Area 4

The District will stockpile materials for potential future emergency levee conditions. Quarry Stone Rip Rap and Aggregate base will be delivered to the island and stockpiled near levee station 395+00.

Slope Protection Work

Approximately 3000 tons of riprap slope protection will be placed in 5,200 feet between levee stations 0+00 and 402+00 at an application rate of approximately 1 ton per lineal foot, to be placed as needed to supplement the existing quarry stone slope protection.

Ancillary Work

To accommodate the import fill proposed in these work sites, modifications to landowner's siphons and ramps may be required. For siphons, this would include raising the pipes through the levee crown such that the invert is above the Base Flood Elevation (BFE)/100 year flood plain elevation and modifying the landside sections of pipe to conform to the proposed slope work. Ramps may require regrading as well as levee access roads to be maintained.

Review Process:

Preliminary data will be prepared by the Project Engineer. The SOW and budget will be prepared and submitted with the initial funding advance request to the DWR representative. The funding request for the preparation of the SOW, CEQA review and preliminary Engineering was submitted on 5/10/11. Subsequent funding advances will be submitted semi annually with updated budgets and progress reports.

DWR and DFG will review the SOW and provide comments to the District. Revisions if required will be incorporated accordingly.

Upon approval of the SOW, the plans and specifications will be prepared and submitted to DWR for review. Revisions if required will be incorporated accordingly.

A site visit was conducted during the week of December 8th 2010, with DFG and DWR personnel. Upon approval of this SOW, DFG will provide AB360 mitigation requirements. The AB 360 pre-project form will be completed and submitted to DWR.

Permitting Issues:

The CEQA Notice of Exemption has been filed and the DWR Environmental Information form is included herewith.

To avoid any unusual circumstances that may arise during the project the following procedures will be followed:

- All riprap will be placed above the Ordinary High Water Mark (OHWM).
- No onsite borrow sites will be used. All material will be imported.
- All impacts to habitat will be mitigated per the Delta levee program (AB 360) requirements.
- DFG will review the work sites prior to the start of work to ascertain the quantity of AB 360 Habitat that may be required. The District will expend funds from the work agreement to execute the mitigation.
- An independent CEQA determination by Insight Environmental Inc is enclosed herewith.
- A Baseline Biological Resources Assessment by Moore Biological, dated April 5 2011, is also enclosed herewith.
- As outlined in the Moore Biological resources assessment, the District will implement the projects biological avoidance measures (attached).

The DFG Representative and DWR staff has visited the site. The work associated with this SOW raised no preliminary concerns as long as a Streambed Alteration Agreement is obtained for the waterside slope protection and waterside plantings. The District's (Palm Tract) Standard Routine Maintenance Agreement (Notification II-836-90) allows only 1,200 feet of slope protection placement per year, in increments not exceeding 100 ft. The PSP included more than this amount, and the District will prepare a Notification of Lake or Streambed Alteration, which will be forwarded to the District's DFG representative, Mark Philipp, as well as the Regional Office Central Coast (Region 3) in Yountville, CA. This notification is the application to obtain a Streambed Alteration Agreement (SAA/1602permit).

Mitigation:

The DFG will determine the required AB360 mitigation requirements. Upon final approval of this SOW, DFG will calculate the quantity and type of mitigation required. The District will enter into agreements for purchase of mitigation credits at DFG approved Mitigation Banks. There is an allowance in the budget for mitigation.

Quality Assurance and Quality Control:

Material submittals and approval prior to job delivery.

Onsite inspection to assure the contractor is completing the work per the plans and specifications.

Meetings:

A meeting will be held with DWR prior to bidding the project to review the plans and specification as well as the procedures for project implementation. Comments on the plans and specifications will be incorporated as necessary.

A prebid meeting and job walk will be held for prospective contractors.

A preconstruction meeting will be held at the beginning of the project between the Engineers and the successful contractor.

Meetings will be arranged as needed during construction.

Schedule of Work:

Following is a tentative schedule that reflects the project milestones.

<u>Description</u>	<u>Start</u>	<u>Complete</u>
Receive DWR Project Funding Agreement	Feb 28, 2011	
Field surveys	Jan 15, 2011	May 15, 2011
Develop initial plan and specifications	Jan 15, 2011	June 15, 2011
Site visit with DFG for preliminary planning of provisional work	Dec 08, 2010	Dec 08, 2010
Prepare Environmental/CEQA Information	Feb 2, 2011	May 20, 2011
Prepare SOW	Feb 2, 2011	May 20, 2011
Notification of Streambed Alteration	Feb 15, 2011	May 27, 2011
Process Streambed Alteration Agreement	May 31, 2011	June 30, 2011
Request initial advance funding	May 10, 2011	
Approve SOW/CEQA Exemption	May 23, 2011	June 06, 2011
Delta Stewardship Council approval	June 06, 2011	June 15, 2011
Prepare final plans and specifications (P/S)	June 15, 2011	July 01, 2011
DWR review of P/S	July 01, 2011	July 15, 2011
DWR Process and advance funding	May 10, 2011	July 15, 2011
Advertise and Bid construction project	July 15, 2011	Aug 05, 2011
Award contract	Aug 05, 2011	Aug 15, 2011
Construct project(s)	Aug 15, 2011	June 30, 2013
As built report(s)	June 30, 2011	June 30, 2013

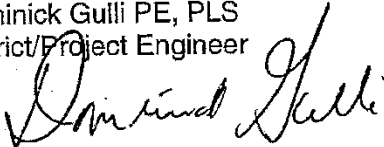
Budget:

Attached to this SOW is the budget showing the SOW expected project costs, which reflects the estimated costs for the project. In the event that competitive bids are received that are lower than the estimated budget, additional fill will be proposed to be placed within the prescribed template (s). Conversely, if the bids are more than the estimate or if the quantities are understated, less fill will be placed at the PL84-99 slope locations.

If you have any questions regarding this Scope of Work, please contact me at greenmountaindom@hotmail.com or phone (209) 478-6525.

Green Mountain Engineering

Dominick Gulli PE, PLS
District/Project Engineer



Attachments:

Environmental Information Form Dated May 19, 2011
SOW Budget Dated May 20, 2011
Work Area Drawing
Typical Cross sections
Insite Environmental Inc. Confirmation of CEQA determination Dated May 19, 2011
Moore Biological Baseline Biological Resources assessment dated May 17, 2011
USFWS Species list and CNDDDB
Photos

CC: Dante John Nomellini
Insight Environmental
Moore Biological
Chris Neudeck

4.05.D

RECLAMATION DISTRICT NO. 2039
221 Tuxedo Court, Suite "F"
Stockton, CA 95204
Phone No. (209) 466-1408

Steve Barsoom, President
James Barsoom, Trustee
Jaime DeFremery, IV, Trustee
Kurt Sharp, Trustee
Al Tossano, Trustee

Richard Johnson, Secretary
Dominick Gulli District Engineer

June 1, 2011

Department of Water Resources
Delta & Suisun Marsh Office
P.O. Box 942836
Sacramento, CA 94236-0001

email: mikemi@water.ca.gov
phone: (916) 651-7016

Attn: Karimi Arao

email: sarao@water.ca.gov

Re: Reclamation District 2039 Upper Jones Tract
Work Agreement UJ 10-3.0
Scope of Work (SOW)

Introduction:

The project defined in this Scope of Work (SOW) consists of upgrading the Upper Jones Tract Levee by: (1) constructing portions of the PL84-99 slopes for slope stability and seepage control; (2) construction of a habitat enhancement setback back levee with Shaded Riverine Aquatic habitat; and (3) provide better emergency access and reinforce the existing setback levee at the Bacon Island Road under crossing. The general scope of services is consistent to that outlined in the Proposal Solicitation Package (PSP) submitted to Department of Water Resources (DWR) as amended on April 6, 2010. Levee materials will be imported to the jobsite with trucks or marine based equipment and barges.

The District has performed the required engineering to design the repair, prepared plans and specifications, bid the project and applied for the required permits.

Since the time of the PSP submittal, the District has made progress toward its 5 year plan by surveying more detailed cross sections to supplement the Lidar data provided by DWR. The Department of Fish and Game (DFG) habitat logs have been input into a spreadsheet, and a better determination of assets protected and areas of concern has been made.

The District recently completed a toe berm project between levee stations 3+00 to 19+00. The project will be submitted with the 2010/2011 Levee subventions claim.

Personnel:

DWR Project Officer:	Karimi Arao
District Secretary	Richard Johnson
District President:	Steve Barsoom

District/Project Engineer:	Dominick Gulli PE, PLS Green Mountain Engineering,
Construction Manager	Kjeldsen, Sinnock and Neudeck, Inc. Chris Neudeck PE
District Secretary	Richard Johnson
DFG Representative	Mark Philipp
CEQA Consultant	Insight Environmental Trevor Smith
Environmental Biologist	Moore Biological Diane Moore

Work and Services:

The work consists of levee repairs including seepage berms, back slope work toward the PL 84-99 slope, a setback levee to allow Habitat Enhancement along the waterside of the levee, waterside slope protection above the Ordinary High Water Mark (OHWM), and Reinforcing Bacon Island Road under crossing of the BNSF Railroad. Following are the procedures to be used to construct the works.

- A majority of the existing topography has been completed.
- A field visit with the DFG Representative has been made to determine any potential AB 360 impacts.
- Environmental consultants have been retained to assist with CEQA compliance and endangered species avoidance measures.
- Cross section data will be used to calculate quantities.
- Plans and specifications will be prepared.
- The Notice to Contractors will be published in a public newspaper in accordance with the public contracting code.
- The Notice to Contractors will also be forwarded to prospective contractors.
- A job walk will be held to show the project to prospective contractors.
- Addendums will be issued if clarification on the plans and specifications is required.
- The bids will be received and opened in public.
- The bids will be reviewed for completeness by the Project Engineer, District Engineer and District Secretary.
- A contract will be awarded to the lowest responsible bidder.
- Upon receipt of the required contract documents, a Notice to Proceed will be issued to the contractor.
- The improvements will be staked by the Project Engineer.
- All construction material such as import fill, rip rap and aggregate base will be delivered to the work site by floating equipment, and will be paid for by the ton.
- The Construction Manager will ensure that the project is being constructed per the plans and specifications.
- Contractor progress payments will be reviewed on a monthly basis by the Engineers and reported to the District and DWR for payment.
- An as-built report will be prepared at the conclusion of each completed portion of the work.
- The scope of work shall not deviate from this SOW without consultation with the DWR Project Engineer.
- No direction shall be taken from sources other than DWR.

Work Areas:

The PSP work areas originally proposed will be the basis of the scope of work. Enclosed is a map illustrating the work areas.

Seepage/Stability berms Work Area 1

The lower lifts of the PL84-99 toe berm/slope will be installed in approximate 4 ft thick lifts at a rate of about 12-16 tons/lf. The practice is to allow a complete lift to rest for a minimum of 30 days to monitor prior to placing additional lifts.

Stations 3+00 to 45+00, 65+00 to 80+00.

PL 84-99 Slope Work Area 2

The lower lifts of the PL84-99 toe berm/slope will be installed in approximate 4 ft thick lifts at a rate of about 12-16 tons/lf. The practice is to allow a complete lift to rest for a minimum of 30 days to monitor prior to placing additional lifts.

Stations -6+00 to 90+00

Habitat Enhancement/Emergency Preparation work Area 3

An oversized "setback levee" will be constructed between levee stations 14+00 to 30+00 that will shift the PL 84-99 template landward to allow tree/scrub and cover plantings outside of the PL84-99 levee template. The trees would be planted within slope protection above the OHWM possibly with biodegradable ballast buckets similar to those used in projects throughout the Delta. Quarry stone slope protection will be used to protect the habitat area and the vegetation it supports.

The completion of the habitat setback is dependent on constraints such as funding, permitting, and contract completion date restraints. The District will coordinate with the DWR to satisfactorily implement this project component.

The fill will be placed in lifts similar to the PL 84-99 slope described above

Emergency Preparation Work Area 4

The District will raise and widen the existing secondary levee located at the Bacon Island Road Under crossing of the BNSF Railroad (station -6+00 to -2+00).

Slope Protection Work

Approximately 3000 tons of riprap slope protection will be placed at locations shown on the work area map.

Ancillary Work

To accommodate the import fill proposed in these work sites, modifications to landowner's siphons and ramps may be required. For siphons, this would include raising the pipes through

the levee crown such that the invert is above the Base Flood Elevation (BFE)/100 year flood plain elevation and modifying the landside sections of pipe to conform to the proposed slope work. Ramps may require regrading as well as levee access roads to be maintained.

Review Process:

Preliminary data will be prepared by the Project Engineer. The SOW and budget will be prepared and submitted with the initial funding advance request to the DWR representative. The funding request for the preparation of the SOW, CEQA review and preliminary Engineering was submitted on 5/10/11. Subsequent funding advances will be submitted semi annually with updated budgets and progress reports.

DWR and DFG will review the SOW and provide comments to the District. Revisions if required will be incorporated accordingly.

Upon approval of the SOW, the plans and specifications will be prepared and submitted to DWR for review. Revisions if required will be incorporated accordingly.

A site visit was conducted during the week of December 8th 2010, with DFG and DWR personnel. Upon approval of this SOW, DFG will provide AB360 mitigation requirements. The AB 360 pre-project form will be completed and submitted to DWR.

Permitting Issues:

The CEQA Notice of Exemption has been filed and the DWR Environmental Information form is included herewith.

To avoid any unusual circumstances that may arise during the project the following procedures will be followed:

- All riprap will be placed above the Ordinary High Water Mark (OHWM).
- No onsite borrow sites will be used. All material will be imported.
- All impacts to habitat will be mitigated per the Delta levee program (AB 360) requirements.
- DFG will review the work sites prior to the start of work to ascertain the quantity of AB 360 Habitat that may be required. The District will expend funds from the work agreement to execute the mitigation.
- An independent CEQA determination by Insight Environmental Inc is enclosed herewith.
- A Baseline Biological Resources Assessment by Moore Biological is also enclosed herewith.
- As outlined in the Moore Biological resources assessment, the District will implement the projects biological avoidance measures (attached).

The DFG Representative and DWR staff has visited the site. The work associated with this SOW raised no preliminary concerns as long as a Streambed Alteration Agreement is obtained for the waterside slope protection and waterside plantings. The District's Standard Routine Maintenance Agreement (Notification II-840-90) allows only 1,200 feet of slope protection placement per year, in increments not exceeding 100 ft. The PSP included more than this amount, and the District will prepare a Notification of Lake or Streambed Alteration, which will be forwarded to the District's DFG representative, Mark Philipp, as well as the Regional Office

Central Coast (Region 3) in Yountville, CA. This notification is the application to obtain a Streambed Alteration Agreement (SAA/1602permit).

Mitigation:

The DFG will determine the required AB360 mitigation requirements. Upon final approval of this SOW, DFG will calculate the quantity and type of mitigation required. The District will enter into agreements for purchase of mitigation credits at DFG approved Mitigation Banks. There is an allowance in the budget for mitigation.

Quality Assurance and Quality Control:

Material submittals and approval prior to job delivery.

Onsite inspection to assure the contractor is completing the work per the plans and specifications.

Meetings:

A meeting will be held with DWR prior to bidding the project to review the plans and specification as well as the procedures for project implementation. Comments on the plans and specifications will be incorporated as necessary.

A prebid meeting and job walk will be held for prospective contractors.

A preconstruction meeting will be held at the beginning of the project between the Engineers and the successful contractor.

Meetings will be arranged as needed during construction.

Schedule of Work:

Following is a tentative schedule that reflects the project milestones.

<u>Description</u>	<u>Start</u>	<u>Complete</u>
Receive DWR Project Funding Agreement	Feb 28, 2011	
Field surveys	Jan 15, 2011	June 30, 2011
Develop initial plan and specifications	Jan 15, 2011	June 15, 2011
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Prepare SOW	Feb 2, 2011	May 31, 2011
Notification of Streambed Alteration	Feb 15, 2011	June 30, 2011
Process Streambed Alteration Agreement	June 30, 2011	July 30, 2011
Request initial advance funding	May 10, 2011	
Approve SOW/CEQA Exemption	June 01, 2011	June 06, 2011
Delta Stewardship Council approval	June 06, 2011	June 15, 2011
Prepare final plans and specifications (P/S)	June 15, 2011	July 01, 2011
DWR review of P/S	July 01, 2011	July 15, 2011
DWR Process and advance funding	May 10, 2011	July 15, 2011
Advertise and Bid construction project	July 15, 2011	Aug 05, 2011
Award contract	Aug 05, 2011	Aug 15, 2011
Construct project(s)	Aug 15, 2011	June 30, 2013

As built report(s)

June 30, 2011

June 30, 2013

Budget:

Attached to this SOW is the budget showing the SOW expected project costs, which reflects the estimated costs for the project. In the event that competitive bids are received that are lower than the estimated budget, additional fill will be proposed to be placed within the prescribed template (s). Conversely, if the bids are more than the estimate or if the quantities are understated, less fill will be placed at the PL84-99 slope locations.

On behalf of Upper Jones Tract, Reclamation District 2039, thank you for your assistance with upgrading of the District levee system.

If you have any questions regarding this Scope of Work, please contact me at greenmountaindom@hotmail.com or phone (209) 478-6525.

Green Mountain Engineering



Dominick Gulli PE, PLS
District Engineer

Attachments:

Environmental Information Form
SOW Budget
Work Area Drawing
Typical Cross sections
Insite Environmental Inc. Confirmation of CEQA determination
Moore Biological Baseline Biological Resources assessment
USFWS Species list and CNDDDB
Photos

CC: Richard Johnson
Steve Barsoom
KSN
Moore Biological
Insite Environmental
Dante John Nomellini

RECLAMATION DISTRICT NO. 2072

235 East Weber Avenue
P.O. Box 1461
Stockton California 95201
(209) 465-5883
FAX (209) 465-3956

Trustees

Coleman Foley, Pres.
Peter Lucchesi
Kurt Sharp

Secretary and Attorney

Dante John Nomellini
Interim Engineer
Dominick Gulli

Department Of Water Resources (DWR)
1416 Ninth Street Room 1601
Sacramento CA 94236-0001
PO Box 942836

4/11/11

Phone 916-651-0855
Fax: 916-651-9678

Attn: A Felipe Garcia

afgarcia@water.ca.gov

Re: Reclamation District 2072 Woodward Island

Work Agreement WD-10.0-1.0
Scope of Work (revision # 1)

Introduction:

The project defined in this Scope of Work (SOW) consists of upgrading the Woodward Island Levee by: (1) constructing portions of the PL84-99 slopes for slope stability and seepage control; (2) construction of a setback back levee to allow for waterside plantings for habitat enhancement; (3) providing Rock Slope protection along the waterside of the levee above the Ordinary High Water Mark (OHWM); and (4) providing stockpiles of emergency levee materials (Riprap and Aggregate Base (AB)). The general scope of services is consistent to that outlined in the Proposal Solicitation Package (PSP) submitted to Department of Water Resources (DWR) as amended on April 7, 2010. Levee materials will be imported to the jobsite with Marine based equipment and barges.

Since the time of the PSP submittal, the District has made progress toward its 5 year plan by surveying more detailed cross sections to supplement the Lidar data provided by DWR. The Department of Fish and Game (DFG) habitat logs have been input into a spreadsheet, and a better determination of assets protected and areas of concern has been made. The District has performed levee construction which raised the levee crown above the HMP elevation from station 140+00 to 210+00, and installed a portion of the PL84-99 slope from station 210+00 to 222+00.

Personnel:

DWR Project Engineer: A Felipe Garcia

Interim District Engineer:	Dominick Gulli PE, PLS
Project Engineer:	Green Mountain Engineering, Dominick Gulli PE, PLS
Construction Manager	Kjeldsen, Sinnock and Neudeck, Inc. Chris Neudeck PE
District Secretary	Dante John Nomellini
DFG Representative	Mark Philipp
CEQA Consultant	Insight Environmental Trevor Smith
Environmental Biologist	Moore Biological Diane Moore

Work and Services:

The work consists of levee repairs including back slope work toward the PL 84-99 slope, a setback levee to allow Habitat Enhancement along the waterside of the levee, waterside slope protection above the Ordinary High Water Mark (OHWM), and emergency material stockpiles. Following are the procedures to be used to construct the works.

- A majority of the existing topography has been completed.
- A field visit with the DFG Representative has been made to determine any potential AB 360 impacts.
- Environmental consultants have been retained to assist with CEQA compliance and endangered species avoidance measures.
- Cross section data will be used to calculate quantities.
- Plans and specifications will be prepared.
- The Notice to Contractors will be published in a public newspaper in accordance with the public contracting code.
- The Notice to Contractors will also be forwarded to prospective contractors.
- A job walk will be held to show the project to prospective contractors.
- Addendums will be issued if clarification on the plans and specifications is required.
- The bids will be received and opened in public.
- The bids will be reviewed for completeness by the Project Engineer, District Engineer and District Secretary.
- A contract will be awarded to the lowest responsible bidder.
- Upon receipt of the required contract documents, a Notice to Proceed will be issued to the contractor.
- The improvements will be staked by the Project Engineer.
- All construction material such as import fill, rip rap and aggregate base will be delivered to the work site by floating equipment, and will be paid for by the ton.
- The Construction Manager will ensure that the project is being constructed per the plans and specifications.
- Contractor progress payments will be reviewed on a monthly basis by the Engineers and reported to the District and DWR for payment.
- An as-built report will be prepared at the conclusion of each completed portion of the work.
- The scope of work shall not deviate from this SOW without consultation with the DWR Project Engineer.
- No direction shall be taken from sources other than DWR.

Work Areas:

The PSP work areas originally proposed will be the basis of the scope of work. Enclosed is a map illustrating the work areas.

Lower Lifts of PL 84-99 Slopes Work Area 1

The lower lifts of the PL84-99 toe berm/slope will be installed in approximate 4 ft thick lifts at a rate of about 12-16 tons/lf. The practice is to allow a complete lift to rest for a minimum of 30 days to monitor prior to placing additional lifts.

Specific slope repairs include: Station 0+00 to 15+00 and 385+00 to 471+00.

Habitat Setback Levee Work Area 2

An oversized "setback levee" will be constructed between levee stations 315+00 to 325+00 that will shift the PL 84-99 template landward to allow tree/scrub and cover plantings outside of the parameters defined in the Corps Technical letter 1110-2-571. The trees would be planted within slope protection above the OHWM possibly with biodegradable ballast buckets similar to those used in projects throughout the Delta. Quarry stone slope protection will be used to protect the habitat area and the vegetation it supports.

Attached herewith is Chapter 2 and detail 23 from the Corps of Engineers Technical Letter (ETL) 1110-2-571 Dated 10April2009 which is used as a guideline for the levee setback. The requirements of the ETL listed in section 2-2 and figure 23 for a levee section with OHWM above the riverside toe is illustrated on the enclosed typical details.

The entire ETL can be found at:

http://www.usace.army.mil/LeveeSafety/KeyDocuments/Pages/lev_keydocs.aspx#vegetation

The project solicitation package was based on the PL 84-99 slope being constructed. DWR work agreement WD 10-2.0 included a portion of the PL 84-99 slope within the Habitat setback levee location. The completion of the habitat setback is dependent on the implementation of this other work agreement as well as other constraints such as funding, permitting, and contract completion date restraints. The District will coordinate with the DWR to satisfactorily implement this project component.

The fill will be placed in lifts similar to the PL 84-99 slope described above.

Slope Protection Work Area 3

Approximately 10,560 tons of riprap slope protection will be placed between levee stations 220+00 to 340+00 at an application rate of approximately 1 ton per lineal foot, to be placed as needed to supplement the existing quarry stone slope protection.

Emergency Preparedness Work Area 4

The District will stockpile materials for potential future emergency levee conditions. Quarry Stone Rip Rap and Aggregate base will be offloaded by barge and stockpiled near levee station 390+00.

Ancillary Work

To accommodate the import fill proposed in these work sites, modifications to landowner's siphons and ramps may be required. For siphons, this would include raising the pipes through the levee crown such that the invert is above the Base Flood Elevation (BFE)/100 year flood plain elevation and modifying the landside sections of pipe to conform to the proposed slope work. Ramps will require raising, regrading and resurfacing to conform to the proposed finished grades of the improvements.

Review Process:

Preliminary data will be prepared by the Project Engineer. The SOW and budget will be prepared and submitted with the initial funding advance request to the DWR representative. Subsequent funding advances will be submitted semi annually with updated budgets and progress reports.

DWR and DFG will review the SOW and provide comments to the District. Revisions if required will be incorporated accordingly.

Upon approval of the SOW, the plans and specifications will be prepared and submitted to DWR for review. Revisions if required will be incorporated accordingly.

A site visit was conducted during the week of December 8th 2010, with DFG and DWR personnel. Upon approval of this SOW, DFG will provide AB360 mitigation requirements. The AB 360 pre-project form will be completed and submitted to DWR.

Permitting Issues:

The CEQA Notice of Exemption has been filed and the DWR Environmental Information form is included herewith.

To avoid any unusual circumstances that may arise during the project the following procedures will be followed:

- All riprap will be placed above the Ordinary High Water Mark (OHWM).
- No onsite borrow sites will be used. All material will be imported.
- All impacts to habitat will be mitigated per the Delta levee program (AB 360) requirements.
- DFG will review the work sites prior to the start of work to ascertain the quantity of AB 360 Habitat that may be required. The District will expend funds from the work agreement to execute the mitigation.
- An independent CEQA determination by Insight Environmental Inc., dated April 5 2011, is enclosed herewith.
- A Baseline Biological Resources Assessment by Moore Biological, dated April 5 2011, is also enclosed herewith.

- As outlined in the Moore Biological resources assessment dated April 5 2011, the District will implement the projects biological avoidance measures (attached).

The DFG Representative and DWR staff has visited the site. The work associated with this SOW raised no preliminary concerns as long as a Streambed Alteration Agreement is obtained for the waterside slope protection and waterside plantings. The District's Standard Routine Maintenance Agreement (Notification II-833-90) allows only 1,200 feet of slope protection placement per year, in increments not exceeding 100 ft. The PSP included more than this amount, and the District will prepare a Notification of Lake or Streambed Alteration, which will be forwarded to the District's DFG representative, Mark Philipp, as well as the Regional Office Central Coast (Region 3) in Yountville, CA. This notification is the application to obtain a Streambed Alteration Agreement (SAA/1602permit).

Mitigation:

The DFG will determine the required AB360 mitigation requirements. Upon final approval of this SOW, DFG will calculate the quantity and type of mitigation required. The District will enter into agreements for purchase of mitigation credits at DFG approved Mitigation Banks. There is an allowance in the budget for mitigation.

Quality Assurance and Quality Control:

Material submittals and approval prior to job delivery.

Onsite inspection to assure the contractor is completing the work per the plans and specifications.

Meetings:

A meeting will be held with DWR prior to bidding the project to review the plans and specification as well as the procedures for project implementation. Comments on the plans and specifications will be incorporated as necessary.

A prebid meeting and job walk will be held for prospective contractors.

A preconstruction meeting will be held at the beginning of the project between the Engineers and the successful contractor.

Meetings will be arranged as needed during construction.

Schedule of Work:

Following is a tentative schedule that reflects the project milestones.

<u>Description</u>	<u>Start</u>	<u>Complete</u>
Receive DWR Project Funding Agreement	Feb 28, 2011	
Field surveys	Jan 15, 2011	May 15, 2011
Develop initial plan and specifications	Jan 15, 2011	June 15, 2011
Site visit with DFG for preliminary planning of provisional work	Dec 08, 2010	Dec 08, 2010
Prepare Environmental/CEQA Information	Feb 2, 2011	April 11, 2011
Prepare SOW	Feb 2, 2011	April 11, 2011

Notification of Streambed Alteration	Feb 15, 2011	May15, 2011
Process Streambed Alteration Agreement	May 15, 2011	June 30, 2011
Request initial advance funding	Mar 07, 2011	
Approve SOW/CEQA Exemption	April 11, 2011	June 15, 2011
Delta Stewardship Council approval	May15 2011	June 15, 2011
Prepare final plans and specifications (P/S)	June 15, 2011	July 01, 2011
DWR review of P/S	July 01, 2011	July 15, 2011
DWR Process and advance funding	June 15, 2011	July 15, 2011
Advertise and Bid construction project	July 15, 2011	Aug 05, 2011
Award contract	Aug 05, 2011	Aug 15, 2011
Construct project(s)	Aug 15, 2011	June 30, 2013
As built report(s)	June 30, 2011	June 30, 2013

Budget:

Attached to this SOW is the budget dated April 6, 2011 which reflects the estimated costs for the project. In the event that competitive bids are received that are lower than the estimated budget, additional fill will be proposed to be placed within the prescribed template (s). Conversely, if the bids are more than the estimate or if the quantities are understated, less fill will be placed at the PL84-99 slope locations.

If you have any questions regarding this Scope of Work, please contact me at greenmountaindom@hotmail.com or phone (209) 478-6525.

Green Mountain Engineering



Dominick Gulli PE, PLS
Interim District/Project Engineer

Attachments:

Environmental Information Form Dated April 11, 2011
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Work Area Drawing
Typical Cross sections
Insite Environmental Inc. Confirmation of CEQA determination Dated 05Apr11
Genesis Society letter dated 23Feb11
Moore Biological Baseline Biological Resources assessment dated 05Apr11
USFWS Species list and CNDDB
Photos

CC: Dante John Nomellini
Insight Environmental
Moore Biological
Chris Neudeck